Collier Shannon Scott



Collier Shannon Scott, PLLC Washington Harbour, Suite 400 3050 K Street, NW Washington, DC 20007-5108 202.342.8400 TEL

202.342.8451 FAX



John N. Coulby Associate (202)342-8829 JCoulby@colliershannon.com

April 12, 2002

Assistant Commissioner For Patents BOX MISSING PARTS Washington, D.C. 20231

Re: U.S. Patent Application Serial No. 10/084,998

For: APPARATUS AND METHOD FOR FABRICATING FIBER REINFORCED PLASTIC PARTS

TIDER REINFORCED FLASTIC FA

Our Reference: 49810-00601

Dear Sir:

Transmitted herewith for filing in the U.S. Receiving Office are the following documents:

- 1. Transmittal Letter;
- 2. Copy of Notice to File Corrected Application Papers;
- 3. Response to Notice to File Corrected Application Papers; and
- 4. Substitute drawings depicting Figs.1-5 (6 sheets) in compliance with 37 CFR 1.84(g).

Sincerely yours,

JOHN N. COULBY, Reg. No. 43,565

Enclosures

522861

49810-00601

Comparison of Proc sses

Existing Design Program CNC Build Plug Frame Add Foam Machine Foam Surface Foam Fabricate Mold Prep Mald Laminate Part Finished Part

Proposed Design Program CNC Laminate Part Surface Part Finished Part





Extrusion Head Schematic

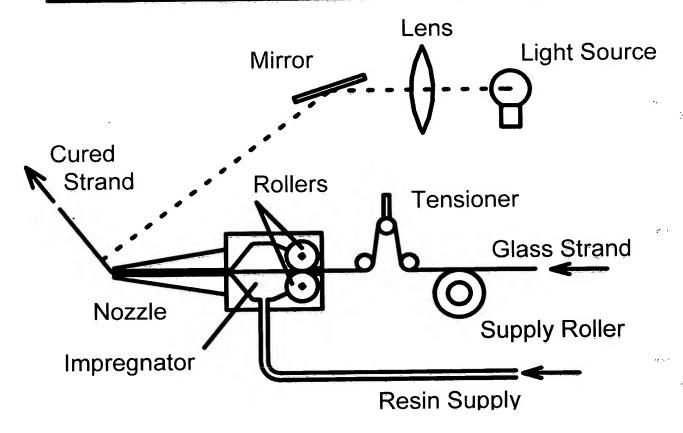
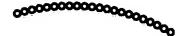


Fig. 1

Some Extrusion Shapes



Small Dia. Bead for Intricate Detail



Flat Web to Reduce Machine Time

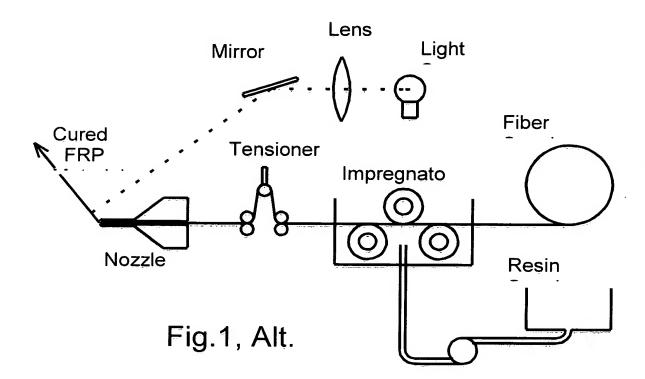


Tee or Channel Sections for Stiffness



Fig. 2

Extrusion Head



Sections Through Passes of

Small Dia. Rods for Intricate (formed from yarns through a round



Flat Web to Reduce Machine (formed from ribbons through a flat



Angles to Improve (formed from ribbon through an angle shaped



Multi Layer for High Strength to Weight (formed from yarns through a orifice in succesive

Fig. 2. Alt.

49810-00601